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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Paul Fredrick Luther Weindorf

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EXAMINER

SHAPIRO, LEONID

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/840,039	<b>Applicant(s)</b> LUTHER WEINDORF, PAUL FREDRICK	
	<b>Examiner</b> Leonid Shapiro	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-15,17-28 and 30-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-15,17-28,30-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Objections***

1. Claims 19,27 are objected to because of the following informalities: Claims 19,27 depend on canceled claim 16. Appropriate correction is required.

***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation of claim 42: “transitions from an upper luminance value at the lower temperature threshold” and the limitation of claim 43: “the display luminance at the low luminance value when the temperature exceeds the upper temperature threshold” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New

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Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The limitation of claim 42: “transitions from an upper luminance value at the lower temperature threshold” and the limitation of claim 43: “the display luminance at the low luminance value when the temperature exceeds the upper temperature threshold” are not described in the specification.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 42-43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The limitation of claim 42: “transitions from an upper luminance value at the lower temperature threshold” and the limitation of claim 43: “the display luminance at the low luminance value when the temperature exceeds the upper temperature threshold” are not described in the specification or shown in the Figures.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,3-15,17-28,30-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masami (JP 2001-312249) in view of Awakura et al. (US 2005/0068270 A1).

As to claim 1, Masami teaches a system to compensate for luminance degradation of a display (Problem to be solved), the system comprising:

a controller coupled to the display and configured to provide power to the display thereby controlling the display luminance (Drawing 1, item 16, paragraph 0005); and

a temperature sensor proximate the display (Drawing 1, item 14, paragraph 0005) and in electrical communication with the controller, wherein the controller is configured to vary the display luminance, based on a temperature

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measured by the temperature sensor (Drawing 1, items 12,14,16, paragraph 0005, Solution).

Masami does not disclose the controller is configured to decrease the display luminance as the temperature of the display increases through a first temperature range until the temperature reaches an upper temperature threshold.

Awakura et al. teaches to decrease the display luminance as the temperature of the display increases through a first temperature range until the temperature reaches an upper temperature threshold (fig. 5, item 300, par. 0059).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Awakura et al. into Masami system in order to reduce changes in the display luminance (par. 0059 in the Awakura et al. reference).

As to claim 3,6-8,17,20-22,30,33-35 Masami teaches the controller is configured to decrease (increase) the display luminance as the temperature of the display is decrease (increase) (paragraph 0005, Solution).

As to claim 15, Masami teaches a method for compensating luminance degradation of a OLED display (Problem to be solved), the system comprising:

providing power to (Drawing 1, item 16, paragraph 0005);

varying luminance of the OLED display based on temperature of the OLED display (Drawing 1, items 12,14,16, paragraph 0005, Solution).

Masami does not disclose the controller is configured to decrease the display luminance as the temperature of the display increases through a first temperature range until the temperature reaches an upper temperature threshold.

Awakura et al. teaches to decrease the display luminance as the temperature of the display increases through a first temperature range until the temperature reaches an upper temperature threshold (fig. 5, item 300, par. 0059).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Awakura et al. into Masami system in order to reduce changes in the display luminance (par. 0059 in the Awakura et al. reference).

As to claim 28, Masami teaches a system to compensate for luminance degradation of an OLED display (Problem to be solved), the system comprising:

a controller coupled to the display and configured to provide power to the OLED display thereby controlling the display luminance (Drawing 1, item 16, paragraph 0005); and

a temperature sensor proximate the OLED display (Drawing 1, item 14, paragraph 0005) and in electrical communication with the controller, wherein the controller is configured to vary the display luminance, based on a temperature measured by the temperature sensor (Drawing 1, items 12,14,16, paragraph 0005, Solution).

Masami does not disclose the controller is configured to decrease the display luminance as the temperature of the display increases through a first temperature range until the temperature reaches an upper temperature threshold.

Awakura et al. teaches to decrease the display luminance as the temperature of the display increases through a first temperature range until the temperature reaches an upper temperature threshold (fig. 5, item 300, par. 0059).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Awakura et al. into Masami system in order to reduce changes in the display luminance (par. 0059 in the Awakura et al. reference).

As to claims 9-10,13-14,23-24,27,35-37,40-41 Masami teaches degradation function (Drawing 3) and the controller is configured to vary the display luminance based on a transfer function having a linear term (in the reference (paragraph 0009) is equivalent to reducing the brightness of an LED component at a fixed rate).

It generally considered to be within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent of showing criticality of in a particular recited value. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to reduce the luminance 50% of the full power luminance at between 80 and 90 degree. Such a limitation would have been considered as obvious variation on the matter of selected luminance which fails patentably distinguish over the prior art of Bowman et al. and Jates et al. In re Rose, 105 USPQ 237 (CCPA 1955).

As to claims 4,11,18,25,31,38 Masami teaches the controller is configured to vary the display luminance based on a transfer function having a linear term (in the reference (paragraph 0009) is equivalent to reducing the brightness of an LED component at a fixed rate) (Drawings 3-4, paragraphs 0006-0009).

As to claims 5,12,19,26,32,39 Masami teaches the controller is configured to vary the display luminance based on a transfer function having a linear term (in the reference (paragraph 0009) is equivalent to reducing the brightness of an LED



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component at a fixed rate) which will satisfy following relationship  $Lop = m \cdot Tk + b$ , where  $Lop$  is the display luminance,  $m$  is a gain,  $TK$  is the temperature of the display, and  $b$  is an offset (Drawings 3-4, paragraphs 0006-0009).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1,3-15,17-28,30-41 have been considered but are moot in view of the new ground(s) of rejection.

### ***Telephone Inquire***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. S./  
Examiner, Art Unit 2629  
01.06.09

/Richard Hjerpe/  
Supervisory Patent Examiner, Art Unit 2629